Amendments to the Claims

Please replace the Claims as shown below:

1. (Currently Amended) A computer implemented method for determining a preference policy for an auction to be conducted, said method comprising:

selecting characteristics of said auction to be conducted;

selecting a relevant bidding model for said auction to be conducted;

estimating a structure of said auction to be conducted, said estimating comprises expressing unobservable variables in terms of observable bids, wherein said unobservable variables are expressed in terms of observable bids by inverting said bid model;

predicting a bidding behavior for said auction to be conducted;

predicting a first outcome of said auction to be conducted; and

evaluating said first outcome of said auction to be conducted, wherein said evaluating comprises:

selecting an optimal preference policy from a plurality of candidate preference policies for treating different groups of bidders differently, wherein said optimal preference policy comprises the candidate preference policy within a plurality having the highest ranking; and

outputting said optimal preference policy to a participating entity in an auction ~~implementation system~~, said outputting performed prior to conducting said auction.

2. (Previously Presented) The computer implemented method as recited in Claim 1, wherein said selecting characteristics of said auction to be conducted further comprises:

receiving a first user input, wherein said first user input comprises information identifying an item to be auctioned;

accessing a database;

retrieving from said database historical bids data;

retrieving from said database auction characteristics data, wherein said auction characteristics comprise information relating to historical auctions of similar items;

outputting said bids data; and

outputting said auction characteristics data.

3. (Previously Presented) The computer implemented method as recited in Claim 1, wherein said selecting a relevant bidding model for said auction to be conducted further comprises:

receiving said auction characteristics data;

accessing a database;

retrieving from said database a relevant bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and

outputting said relevant bidding model.

4. (Currently Amended) The computer implemented method as recited in Claim 1, wherein said estimating a structure of said auction to be conducted further comprises:

receiving said relevant bidding model;

receiving said bids data;

transforming said bids data to a sample of inverted bids, wherein said bids data are transformed by inverting said ~~bid~~ bidding model;

estimating an estimated latent structure of said market, wherein said sample of inverted bids receives application of statistical density estimation techniques to obtain said estimated structure; and

outputting said estimated structure.

5. (Previously Presented) The computer implemented method as recited in Claim 1, wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior for said auction to be conducted further comprises:

receiving said estimated structure;

receiving said relevant bidding model;

substituting said estimated structure for said unknown structure; and

outputting a prediction of bidding behavior.

6. (Previously Presented) The computer implemented method as recited in Claim 1, wherein said predicting a first outcome of said auction to be conducted further comprises:

receiving a second user input, wherein said second user input comprises:

an evaluation criterion;

a candidate preference policy; and

a constraint;

receiving said estimated structure;

receiving said bidding behavior prediction for said candidate preference policy, wherein said bidding behavior prediction further comprises a prediction under said constraint;

obtaining a value of said evaluation criterion, wherein said value is based on said estimated structure, said bidding behavior prediction, said candidate preference policy, and said constraint, said value comprising said first predicted outcome; and

outputting said value.

7. (Previously Presented) The computer implemented method as recited in Claim 1, wherein said evaluating said first outcome of said auction to be conducted further comprises:

receiving a third user input, wherein said third user input comprises a plurality of candidate preference policies;

receiving a predicted outcome for each said candidate preference policy;

calculating descriptive statistics for each said candidate preference policy, wherein said descriptive statistics comprise a mean and a variance;

ranking each said candidate preference policy with respect to said calculated mean and generating corresponding rankings for said plurality; and

outputting said descriptive statistics and said rankings.

8. (Canceled)

9. (Currently Amended) A computer system comprising:

a bus;

a memory interconnected with said bus; and

a processor interconnected with said bus, wherein said processor executes a method for determining a preference policy for an auction to be conducted, said method comprising:

selecting characteristics of said auction to be conducted;

selecting a relevant bidding model for said auction to be conducted;

estimating a structure of said auction to be conducted, said estimating comprises expressing unobservable variables in terms of observable bids, wherein said unobservable variables are expressed in terms of observable bids by inverting said bid model;

predicting a bidding behavior for said auction to be conducted;

predicting a first outcome of said auction to be conducted; and

evaluating said first outcome of said auction to be conducted, wherein said evaluating comprises:

selecting an optimal preference policy from a plurality of candidate preference policies for treating different groups of bidders differently, wherein said optimal preference policy comprises the candidate preference policy within a plurality having the highest ranking; and

outputting said optimal preference policy, prior to conducting said auction, to a participant in said auction an auction implementation system.

10. (Previously Presented) The system as recited in Claim 9, wherein said selecting characteristics of said auction to be conducted further comprises:

receiving a first user input, wherein said first user input comprises information identifying an item to be auctioned;

accessing a database;

retrieving from said database historical bids data;

retrieving from said database auction characteristics data, wherein said auction characteristics comprise information relating to historical auctions of similar items;

outputting said bids data; and

outputting said auction characteristics data.

11. (Previously Presented) The system as recited in Claim 9, wherein said selecting a relevant bidding model for said auction to be conducted further comprises:

receiving said auction characteristics data;

accessing a database;

retrieving from said database a relevant bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and

outputting said relevant bidding model.

12. (Previously Presented) The system as recited in Claim 9, wherein said estimating a structure of said auction to be conducted further comprises:

receiving said relevant bidding model;

receiving said bids data;

transforming said bids data to a sample of inverted bids, wherein said bids data are transformed by inverting said bid model;

estimating an estimated latent structure of said market, wherein said sample of inverted bids receives application of statistical density estimation techniques to obtain said estimated structure; and

outputting said estimated structure.

13. (Previously Presented) The system as recited in Claim 9, wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior for said auction to be conducted further comprises:

receiving said estimated structure;

receiving said relevant bidding model;

substituting said estimated structure for said unknown structure; and

outputting a prediction of bidding behavior.

14. (Previously Presented) The system as recited in Claim 9, wherein said predicting a first outcome of said auction to be conducted further comprises:

receiving a second user input, wherein said second user input comprises:

an evaluation criterion;

a candidate preference policy; and

a constraint;

receiving said estimated structure;

receiving said bidding behavior prediction for said candidate preference policy, wherein said bidding behavior prediction further comprises a prediction under said constraint;

obtaining a value of said evaluation criterion, wherein said value is based on said estimated structure, said bidding behavior prediction, said candidate preference policy, and said constraint, said value comprising said first predicted outcome; and

outputting said value.

15. (Previously Presented) The system as recited in Claim 9, wherein said evaluating said first outcome of said auction to be conducted further comprises:

receiving a third user input, wherein said third user input comprises a plurality of candidate preference policies;

receiving a predicted outcome for each said candidate preference policy;

calculating descriptive statistics for each said candidate preference policy, wherein said descriptive statistics comprise a mean and a variance;

ranking each said candidate preference policy with respect to said calculated mean and generating corresponding rankings for said plurality; and

outputting said descriptive statistics and said rankings.

16. (Canceled)

17. (Currently Amended) A computer readable medium having encoded therein a computer readable code for causing a computer system to execute a computer implemented method for determining a preference policy for an auction to be conducted, said method comprising:

selecting characteristics of said auction to be conducted;

selecting a relevant bidding model for said auction to be conducted;

estimating a structure of said auction to be conducted, said estimating comprises expressing unobservable variables in terms of observable bids, wherein said unobservable variables are expressed in terms of observable bids by inverting said bid model;

predicting a bidding behavior for said auction to be conducted;

predicting a first outcome of said auction to be conducted; and

evaluating said first outcome of said auction to be conducted, wherein said evaluating comprises:

selecting an optimal preference policy from a plurality of candidate preference policies for treating different groups of bidders differently, wherein said optimal preference policy comprises the candidate preference policy within a plurality having the highest ranking; and

outputting said optimal preference policy to <u>a participant in said auction, said outputting performed prior to conducting said auction</u> an auction implementation system.

18. (Previously Presented) The computer readable medium as recited in Claim 17, wherein said selecting characteristics further comprises:

receiving a first user input, wherein said first user input comprises information identifying an item to be auctioned;

accessing a database;

retrieving from said database historical bids data;

retrieving from said database auction characteristics data, wherein said auction characteristics comprise information relating to historical auctions of similar items;

outputting said bids data; and

outputting said auction characteristics data.

19. (Previously Presented) The computer readable medium as recited in Claim 17, wherein said selecting a relevant bidding model further comprises:

receiving said auction characteristics data;

accessing a database;

retrieving from said database a relevant bidding model, wherein said bidding model is selected based on a corresponding relevance of said auction characteristics data; and

outputting said relevant bidding model.

20. (Previously Presented) The computer readable medium as recited in Claim 17, wherein said estimating further comprises:

receiving said relevant bidding model;

receiving said bids data;

transforming said bids data to a sample of inverted bids, wherein said bids data are transformed by inverting said bid model;

estimating an estimated latent structure of said market, wherein said sample of inverted bids receives application of statistical density estimation techniques to obtain said estimated structure; and

outputting said estimated structure.

21. (Previously Presented) The computer readable medium as recited in Claim 17, wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior further comprises:

receiving said estimated structure;

receiving said relevant bidding model;

substituting said estimated structure for said unknown structure; and

outputting a prediction of bidding behavior.

22. (Previously Presented) The computer readable medium as recited in Claim 17, wherein said predicting a first outcome further comprises:

receiving a second user input, wherein said second user input comprises:

an evaluation criterion;

a candidate preference policy; and

a constraint;

receiving said estimated structure;

receiving said bidding behavior prediction for said candidate preference policy, wherein said bidding behavior prediction further comprises a prediction under said constraint;

obtaining a value of said evaluation criterion, wherein said value is based on said estimated structure, said bidding behavior prediction, said candidate preference policy, and said constraint, said value comprising said first predicted outcome; and

outputting said value.

23. (Previously Presented) The computer readable medium as recited in Claim 17, wherein said evaluating said first outcome further comprises:

receiving a third user input, wherein said third user input comprises a plurality of candidate preference policies;

receiving a predicted outcome for each said candidate preference policy;

calculating descriptive statistics for each said candidate preference policy, wherein said descriptive statistics comprise a mean and a variance;

ranking each said candidate preference policy with respect to said calculated mean and generating corresponding rankings for said plurality; and

outputting said descriptive statistics and said rankings.

24. (Canceled)